

IN THE SPECIFICATION:

Please replace the paragraph at page 10, lines 18-21, with the following amended paragraph:

--Further, an electric field required for ~~emitting an electric field is larger~~ electron emission becomes large as a distance d between the end of the emitter and ~~a the~~ gate electrode ~~is smaller~~ becomes small or a radius r of the end of the emitter ~~is smaller~~ becomes small.--

Please replace the paragraph at page 10, lines 22-26, with the following amended paragraph:

--Meanwhile, regarding an electron beam obtained on an anode in the x direction, a maximum Xd (e.g., a maximum throw from the center of the conical beam 137 shown in Fig. 13) is proportional to  $\sqrt{V_f/V_a}$  according to a simple computing, wherein  $V_a$  is a voltage applied to an anode.--

Please replace the paragraph at page 13, lines 15-20, with the following amended paragraph:

--Also, in the configurations of Figs. 13 and 14, the "vertical electric field" can also be referred to as the "electric field substantially perpendicular to the surface of the

substrate 131 (141)" or the "electric field in an opposing direction of the substrate ~~131~~ 131 (141) and the anode 136 (146)".--

Please replace the paragraph beginning at page 15, line 21, and ending at page 16, line 8, with the following amended paragraph:

--Moreover, the inventor found a height *s* causing substantially no scattering on the gate electrode 2 (height *s* ~~is~~ being defined as a distance between a plane including a part of the surface of the gate electrode 2 and being disposed substantially in parallel with the surface of the substrate 1, and a plane including the surface of an electron-emitting member 4 and being disposed substantially in parallel with the surface of the substrate 1 (see Fig. 6)). The height *s* is dependent upon a ratio of the vertical electric field and a lateral electric field (e.g., the strength of the vertical electric field vs. the strength of the lateral electric field). The height *s* needs to be lower as the vertical electric fields is lower, and the height *s* needs to be higher as the lateral electric field is larger.--

Please replace the paragraph at page 29, lines 16-19, with the following amended paragraph:

~~Referring to Figs. 6 and 7, the following will a position of emitting electrons (electron-emitting region) in the "emitter region" and the operation therein.~~ An electron emitting portion in the "emitter region" and the generation therein are described below.